

Technology For the Next Generation Space Telescope

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The Next Generation Space Telescope (NGST) is a major element of NASA's Origins Program. It is currently planned to be a deployable infrared telescope with an 8m aperture diameter and a sensitivity ≈ 1000 times greater than any currently existing or planned infrared telescope. The scientific goals of NGST include imaging the earliest galaxies and proto-galaxies which formed following the "big bang". Several years ago, NASA embarked on an aggressive technology development effort covering a number of technical areas including optics, detectors, deployable structures, wavefront control, passive cooling, operations, etc. This paper presents an overview of the program NASA is pursuing to provide the necessary technologies which will enable an exciting, affordable NGST mission.